RPK-1 Whirlwind - SUW-N-1 / FRAS-1

DATA FOR 2024 (standard update)
RPK-1 "Vikhr" complex - SUW-N-1
Rocket 82R - FRAS-1
★★★

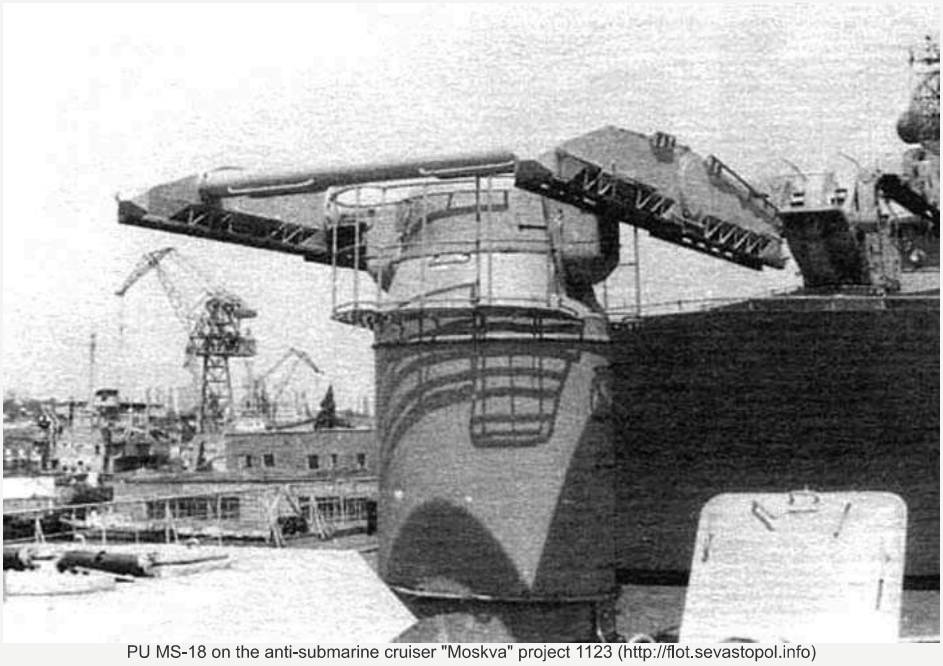
Anti-submarine missile system (RPK) with an unguided ballistic missile with a nuclear depth charge. The complex was developed by NII-1 GKOT (lead developer, named after Moscow Institute of Thermal Engineering) in accordance with the Resolutions of the Central Committee of the CPSU and the Council of Ministers of the USSR dated June 20, 1958 and No. 111-463 dated October 13, 1960 "On the development of new anti-submarine systems". NII-6, NII-9, NII-22 participated in the development. At the first stage, a competition was nominally held for anti-submarine complex designs between NII-1 GKOT, SKV-203 (Sverdlovsk) and SKV-709 of the State Committee for Shipbuilding. The developer of the complex was determined to be NII-1, the chief designer of the complex was N.P. Mazurov. By the end of the development, NII-1 was renamed the Moscow Institute of Heat Engineering (MIT).

The complex includes a ballistic unguided missile 82R on solid fuel (NII-1 GKOT), a twin-boom guided launcher MS-18 (MS-32) with a drum-type automatic loader for 8 (16) missiles, and a fire control system PUSTB-1123 "Sprut" (TsKB-209). Development of a nuclear charge was started by KB-11 (VNIIEF) in 1960.

Field tests of the complex were conducted in 1963 at the Peschanaya Balka test site (Feodosia, 2 PU).

Serial production of the Vikhr missiles began in 1964 at the SKB-203 plant in Sverdlovsk. That same year, the missile passed the first stage of state tests. Launches were made from both land-based launchers and the OS-332 experimental ship (former SKR-1, Project 159). About 40 launches were made. The second stage of state tests took place in 1967 on the lead ship of Project 1123 , the anti-submarine cruiser Moskva. The Vikhr shipborne anti-submarine complex with 82R unguided missiles was accepted into service by Government Resolution No. 440-168 of June 12, 1968. *Some sources mention the name of the Vysota complex in connection with the RPK-1 complex - not identified.*

Special thanks to abl22 for help in preparing the material (http://militaryrussia.ru/forum)



PU MS-18 on the anti-submarine cruiser "Moskva" project 1123 (http://flot.sevastopol.info)

Author: DIMMI Created: 31.05.2010 08:15:13 Comments: 0 READ THE FULL ARTICLE

RPK-6 Waterfall - SS-N-16 STALLION

DATA AS OF 2023 (standard replenishment)
RPK-6 "Vodopad" , 83R, 84R missiles - SS-N-16 STALLION
RPK-6M "Vodopad-NK" , 83RN, 84RN missiles - SS-N-16 STALLION
★★★

Anti-submarine missile system. The creation of the complex was started by OKB-9 (MKB "Novator") in accordance with the Resolution of the USSR Council of Ministers, which was adopted in December 1969. Chief Designer - L.V. Lyulyev, Lead Designer - Nikolai Kostrulin. The complex was intended to equip promising 3rd generation SSNs and the missiles of the complex were to be used with two types of warheads - a special nuclear torpedo and a homing torpedo developed by NPO Uran. Resolution of the Council of Ministers of the USSR No. 302-116 "On the development of work on the creation of underwater weapons" dated May 4, 1976, stipulated the deadlines for completing the development of the complex and accepting it into service. For

testing the complex , the experimental submarines of Project 633 RV S-49 (1973) and S-11 (1982) were converted from the submarines of Project 633 - the boats were converted according to the type of Project 613RV . On the experimental submarines of Project 633 RV, factory, flight design and state tests of missiles were carried out. The complex was accepted into service in 1981. The Vodopad complex is used from torpedo tubes of submarines, the modification of the RPK-6M Vodopad-NK complex is used from torpedo tubes - launchers of surface ships.

Missile of the RPK-6 "Vodopad" complex (photo by Ilya Kurganov, http://submarines.narod.ru/).

Author: DIMMI Created: 13.02.2011 01:14:29 Comments: 69 READ THE FULL ARTICLE

RPK-7 Wind - SS-N-16 STALLION (1984)

DATA AS OF 2011 (standard replenishment)
RPK-7 Veter complex, 86R, 88R, 100RU missiles - SS-N-16 STALLION
★★★

Anti-submarine missile system for use from submarines. The development of the complex was started by OKB-9 (MKB Novator) in accordance with the Resolution of the USSR Council of Ministers dated December 1969. Chief Designer - L.V. Lyulyev. Resolution of the USSR Council of Ministers No. 302-116 "On the development of work on the creation of underwater weapons" dated May 4, 1976 specified the deadlines for completing the development of the complex and accepting it into service. For testing the complex, the experimental submarines of Project 633RV S-49 (1973) and S-11 (1982) were converted from the submarines of Project 633 - the boats were converted according to the type of Project 613RV . Factory, flight design and state tests of missiles were conducted on the experimental submarines of project 633RV. The complex was accepted into service in 1984.

At the pier before loading missiles of the Vodopad and RPK-7 Veter complexes onto the Tver Project 949A SSGN, 2015 (photo - S. Konovalov, https://structure.mil.ru).

Author: DIMMI Created: 13.02.2011 01:15:22 Comments: 19 READ THE FULL ARTICLE

Purga, rocket 80R

DATA AS OF 2018 (standard replenishment)
Purga complex, 80R missile
★

Anti-submarine missile system with an unguided ballistic missile. The development of the complex was initially carried out by GSKB-47, chief designer - S.S. Berezhkov, but was later transferred to NII-1 GKOT. The creation of the complex was carried out on the basis of the Resolutions of the Central Committee of the CPSU and the Council of Ministers of the USSR of June 20, 1958 and No. 111-463 of October 13, 1960 "On the development of new anti-submarine systems". The development of the complex was carried out starting in 1960, the creation of the complex reached the testing stage, but was terminated in 1964.

Author: DIMMI Created: 23.11.2018 21:37:20 Comments: 1 READ THE FULL ARTICLE

RPK-2 Vyuga-65, 81RT missile

DATA AS OF 2018 (standard replenishment)
RPK-2 "Vyuga-65" / D-90T, 81RT missile
★★★

Anti-submarine missile system for use from submarines. In terms of ideology, the system is similar to the Subrock anti-submarine system (USA) and was created by analogy with it. The development of the system was initiated by Resolution of the Council of Ministers of the USSR No. 111-463 of October 13, 1960 "On the creation of new anti-submarine missile systems". The development was initially carried out under the code D-90 in OKB-9 (Sverdlovsk), General Designer - Fyodor Fyodorovich Petrov, Lead Designer - N.G. Kostrulin. The 533 mm caliber missile version received the designation D-90S ("special charge"), the 650 mm caliber version - D-90T ("torpedo"). In OKB-9, a preliminary design of a missile with lattice rudders and an engine for the missile were developed, and experimental studies were conducted - positive results were obtained in tests of movement in the initial section, in the transition section, and in the air section (source). The plan for conducting experimental studies and developing a preliminary design for the Vyuga complex (subject B-XII-54) was approved on 31.01.1961 by the Military-Industrial Complex under the USSR Council of Ministers. The development of the nuclear warhead was carried out by VNIIA (chief designer A.A. Brish), the development of the missile control system was carried out by NII-25 (later renamed NIIP, chief designer A.S. Abramov). The development of the V-1 test rigs (a redesigned PSD-4 floating rig from the R-21 missile) and an experimental submarine for testing was carried out by SKB-143 (chief designer A.V. Kuteinikov).

Two types of missiles with different performance characteristics were created for the complex: for launching from 533 mm torpedo tubes "Vyuga-53" / 81RA and for 650 mm TA - "Vyuga-65" / 81RT. Decoding the designations: "RA" - nuclear missile, "RT" - missile with torpedo. First of all, the development of the "Vyuga-65" complex was started as a more complex one.

The test schedule for the 533 mm caliber missile was adopted in 1963 after the approval of the draft design. On July 20, 1964, by decision of the Military-Industrial Complex under the Council of Ministers of the USSR, due to unsatisfactory results of work on the complex, together with a group of designers (OKB-9-II), they were transferred to OKB-8 (Sverdlovsk, later - OKB "Novator"), L.V. Lyulyev was appointed chief designer of the complex. The transfer of the topic to OKB-8 was confirmed by the decision of the Military-Industrial Commission of January 28, 1965.

Missile 81RT (bottom) of the Vyuga-65 complex (drawing by A.V. Karpenko, http://bastion-karpenko.ru)

Author: DIMMI Created: 18.11.2018 09:41:41 Comments: 1 READ THE FULL ARTICLE

RPK-2 Vyuga, 81R missile - SS-N-15 STARFISH

DATA AS OF 2018 (standard replenishment)
RPK-2 "Vyuga", D-90 / 81R / 81RA / "Vyuga-53" missile - SS-N-15 STARFISH
★★★

Anti-submarine missile system for use from submarines. In terms of ideology, the system is similar to the Subrock anti-submarine system (USA) and was created by analogy with it. The development of the system was initiated by Resolution of the Council of Ministers of the USSR No. 111-463 of October 13, 1960 "On the creation of new anti-submarine missile systems". The development was initially carried out under the code D-90 in OKB-9 (Sverdlovsk), General Designer - Fyodor Fyodorovich Petrov, Lead Designer - N.G. Kostrulin. The 533 mm caliber missile version was designated D-90S ("special charge"). In OKB-9, a preliminary design of a missile with lattice rudders and an engine for the missile were developed, and experimental studies were conducted - positive results were obtained in tests of movement in the initial section, in the transition section, and in the air section (source). The plan for conducting experimental studies and developing a preliminary design for the Vyuga complex (subject B-XII-54) was approved on 31.01.1961 by the Military-Industrial Complex under the USSR Council of Ministers. The development of the nuclear warhead was carried out by VNIIA (chief designer A.A. Brish), the development of the missile control system was carried out by NII-25 (later renamed NIIP, chief designer A.S. Abramov). The development of the V-1 test rigs (a redesigned PSD-4 floating rig from the R-21 missile) and an experimental submarine for testing was carried out by SKB-143 (chief designer A.V. Kuteinikov).

Two types of missiles with different performance characteristics were created for the complex: for launching from 533 mm torpedo tubes "Vyuga-53" / 81RA and for 650 mm TA - "Vyuga-65" / 81RT . Decoding the designations: "RA" - nuclear missile, "RT" - missile with torpedo. First of all, the development of the "Vyuga-65" complex was started as a more complex one.

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Missile 81RA of the RPK-2 Vyuga complex - SS-N-15 STARFISH (http://forums.airbase.ru , 2009).

Author: DIMMI Created: 05.02.2011 19:50:41 Comments: 6 READ THE FULL ARTICLE

RPK-5 Liven RBU-10000

DATA AS OF 2015 (standard replenishment)
RPK-5 "Liven" K89R, RBU-10000 / KT-129 installation, 89P missile
★★★★

Anti-submarine missile system. Number of launcher guides - 6. RPK "Liven" was developed by the Moscow Institute of Thermal Engineering, chief designer N.P. Mazurov (the group of developers was awarded the USSR State Prize for its creation) by decision of the Military-Industrial Complex under the USSR Council of Ministers of July 2, 1969 and by decision of the Military-Industrial Complex under the USSR Council of Ministers No. 241 of September 12, 1972. The system is designed to destroy submarines and torpedoes. The draft design of the complex was accepted in the 3rd quarter of 1971. Throw tests of

missiles with mock-ups of RPK gravity projectiles against the Project 690 submarine target were conducted from April 23 to June 9, 1975. Missile launches against the Project 690 submarine target were also carried out during the Black Sea Fleet command and tactical exercises in 1980. Tests of the complex were conducted from the experimental small anti-submarine ship MPK-5 of Project 1124A (factory No. 702).

In 1982, the complex was accepted into service. Serial production of the complex's rockets was carried out by the Petropavlovsk Heavy Machine Building Plant (Petropavlovsk, source). It was supposed to arm the Project 11540 Yastreb cruiser with the complex and other ships, but the development of the complex was discontinued.

Launch of the 89R missile of the RPK-5 Liven complex (RPK-5 Liven anti-submarine missile complex (K89R). // Army and Navy Review, No. 1 / 2007)

Author: DIMMI Created: 02/14/2009 01:36:40 Comments: 11 READ THE FULL ARTICLE

Bomb launcher BMB-1 / BMB-2

BMB-1
BMB-2

Rodless depth charge launcher (GB). Developed in the SKB MV under the supervision of B.I. Shavyrin. Adopted into service in 1948 (BMB-1). BMB-2 replaced it in 1951.

A BMB-2, SKR-50 mortar launcher fires, 1960 (photo from preodol archive, http://forums.airbase.ru).

Author: DIMMI Created: 14.02.2009 01:52:14 Comments: 4 READ THE FULL ARTICLE

Complex RKPTZ-1 Udav RBU-12000

DATA FOR 2011 (standard update)
Complex RKPTZ-1 "Udav-1", installation KT-153 / RBU-12000
Complex RKPTZ-1M "Udav-1M", installation KT-153 / RBU-12000
★★★

Anti-torpedo missile system - 10-barrel RBU. Developed by the Machine-Building Design Bureau (Kolomna) in the 1980s. First mentioned in the press - 1995. The system can be used against torpedoes, submarines and underwater saboteurs. The RKPTZ-1 system was adopted for service on 27.12.1986, the RKPTZ-1M - on 02.11.2001. The system is manufactured by GNPP Splav (Tula). By default, the system data of the RKPTZ-1M is "Udav-1M".

KT-153 / RBU-12000 on the aircraft carrier "Admiral Kuznetsov" (Military parade, 1998)

KT-153 / RBU-12000 on the aircraft carrier "Admiral Kuznetsov", probably Roslyakovo near Murmansk, September 3, 2006 (photo from the archive of sam7, http://forums.airbase.ru).

Author: DIMMI Created: 14.02.2009 01:27:34 Comments: 5 READ THE FULL ARTICLE

System Smerch-2 RBU-6000

DATA AS OF 2011 (standard replenishment)
Smerch-2 system, RBU-6000 installation
★★★

Rocket-propelled bomb launcher (RBU) of the rocket-propelled anti-submarine system (RPS). Number of guides - 12. Developed by the Moscow Institute of Thermal Engineering, chief designer V.A. Mastalygin (*according to Gusev* - Berezhkov S.S.). Adopted into service in 1964 (in 1961 according to other data). The rocket-propelled depth charge used is RGB-60. Manufactured by the UZTM plant (Sverdlovsk). On many ships it was used together with the RPS " Smerch-3 ".

RBU-6000 on the small anti-submarine ship MPK-304, project 1124, 2009 (photo abl22, http://militaryrussia.ru/forum/)

Author: DIMMI Created: 14.02.2009 01:42:19 Comments: 11 READ THE FULL ARTICLE

RPK-8 Zapad RBU-6000 missile 90R

DATA FOR 2011 (standard update)
RPK-8 "Zapad" complex , RBU-6000 installation , 90R missile
★★★

Anti-submarine missile system with 12-barrel RBU-6000 . Developed by the Design Bureau of the State Research and Production Enterprise "Splav" (Tula) in the late 1980s on the basis of and with the purpose of replacing the RPS types " Smerch-3 " and " Smerch -2 " and using their elements, chief designer - Denezhkin G.A. Adopted into service on 26.11.1991. The system can be used against torpedoes, submarines and underwater saboteurs. In service, confusion is possible in identifying the carriers with the RPS " Smerch-2 ".

Demonstration firing of RBU-6000 installations of the RPK-8 complex from the MPK (http://www.rusarmy.com)

Author: DIMMI Created: 07.08.2010 20:54:52 Comments: 3 READ THE FULL ARTICLE

System Smerch-3 RBU-1000

DATA FOR 2011 (standard update)
RPS "Smerch-3", RBU-1000 installation
★★★

Jet bomb launcher. Number of guides - 6. Developed by NII-1 (Moscow Institute of Thermal Engineering), chief designer V.A. Mastalygin (*according to Gusev* - Berezhkov S.S.). Adopted into service in 1964 (in 1961 according to other data). The rocket GB - RGB-10 is used. The main purpose is to destroy enemy torpedoes, but it can also be used against submarines. Manufactured by the UZTM plant (Sverdlovsk). On many ships it was used together with the RPS " Smerch-2 ".

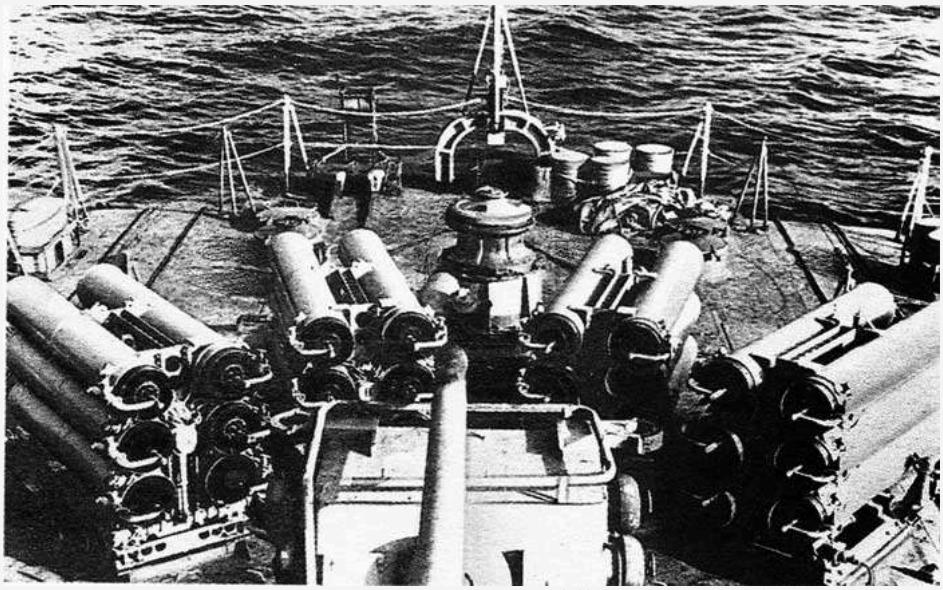
Installation of RBU-1000 (http://flot.sevastopol.info).

Author: DIMMI Created: 14.02.2009 02:07:56 Comments: 2 READ THE FULL ARTICLE

RPS Burun RKU-4500A

DATA FOR 2011 (standard update)
System "Burun", installation RKU-4500A
★★★

Anti-submarine rocket system. Developed at NII-1 (later - Moscow Institute of Thermal Engineering), chief designer N.P. Mazurov (*according to Gusev R.* - Berezhkov S.S.). Adopted into service in 1957. The system is designed for salvo firing of rocket-propelled stern depth charges (RKB) in combination with the Smerch system (for finishing off a submarine attacked by a Smerch). In some sources, the system is mistakenly called "Buran".



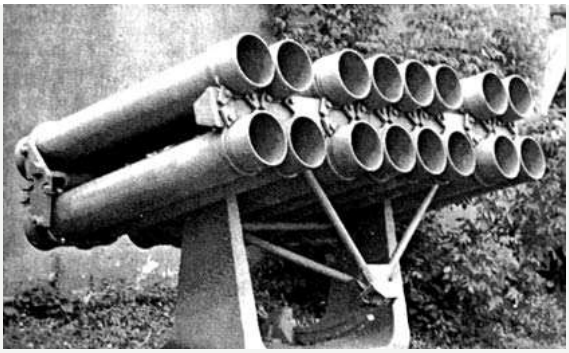
RKU-4500A installations on the destroyer pr.56PLO (http://russianarms.ru)

Author: DIMMI Created: 06.03.2009 01:29:52 Comments: 12 READ THE FULL ARTICLE

RPS Smerch RBU-2500

DATA FOR 2011 (standard replenishment)
RPS "Smerch" RBU-2500
★★★

Smerch anti-submarine rocket system / rocket bomb launcher. Number of guides - 16. RPS was developed at NII-1 (later - Moscow Institute of Thermal Engineering), chief designer - N.P. Mazurov and S.S. Berezhkov (*according to R. Gusev*). The system was accepted into service in 1957. Firing is carried out in salvos of 8 or 16 RGB, single RGB or two or more installations in a salvo. The RGB-25 rocket depth charge is used (the performance characteristics relate mainly to it).



RBU-2500 in the Museum of the USSR Armed Forces (Shirokorad A.B., Weapons of the domestic fleet. 1945-2000. Minsk, Harvest, 2001)

Author: DIMMI Created: 14.02.2009 01:59:37 Comments: 2 READ THE FULL ARTICLE

RPS Hurricane RBU-1200

DATA FOR 2011 (standard replenishment)
RPS "Uragan"RBU-1200
★★★

RPS (anti-submarine rocket system) "Uragan" / rocket-propelled bomb launcher. Number of guides - 5. Developed in NII-1 (later renamed MIT) by a team led by Bodrov S., Artemyev V. and Mastalychik V. (S.S. Berezhkov - *according to R. Gusev*). Adopted into service in 1955. Due to the lack of recoil, the launcher could be installed on ships of small displacement. By default, data on rocket depth charges RGB-12.

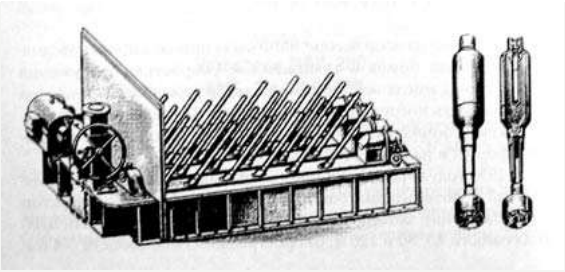
RBU-1200 on the border patrol boat "Poltava" pr.1241P type PAUK of the Ukrainian Navy, 06.09.2009 (photo - Tostan, http:// de.wikipedia.org)

Author: DIMMI Created: 14.02.2009 02:04:03 Comments: 1 READ THE FULL ARTICLE

MBU-600

DATA FOR 2011 (standard update)
MBU-600
★★★

24-barrel rod RBU (multi-barrel bomb-throwing installation). Developed in the SKB MV based on the MBU-200 under the supervision of B.I. Shavyrin. The installation was developed and tested in 1955. Adopted into service in 1956. Used on the minesweeper project 264 (1957), as well as on destroyers, frigates and small submarine chasers.



MBU-600 (Shirokorad A.B., Weapons of the domestic fleet. 1945-2000. Minsk, Harvest, 2001)

Author: DIMMI Created: 02/14/2009 01:54:44 Comments: 1 READ THE FULL ARTICLE

MRG-1

MRG-1

Multi-barrel anti-sabotage rocket-propelled grenade launcher. Adopted into service in 1991-92.

MRG-1 on the aircraft carrier "Admiral Kuznetsov" pr.1143.5

Author: DIMMI Created: 14.02.2009 01:31:49 Comments: 4 READ THE FULL ARTICLE

MBU-200

MBU-200

Multi-barrel bomb launcher (24 barrels). Developed by the SKB MV under the direction of B.I. Shavyrin. Adopted into service in 1949. Used on destroyers, frigates and submarine hunters.

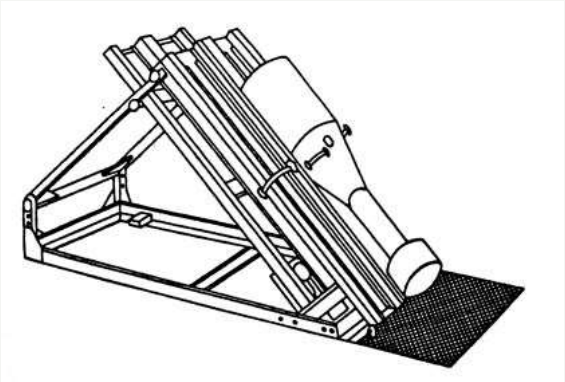
Guidance - by the ship's hull along the course, control of the installation and salvo - by the PUS-24-200 fire control device (installed in the wheelhouse).

Author: DIMMI Created: 06.03.2009 00:16:07 Comments: 1 READ THE FULL ARTICLE

RBU (1945)

RBU

A rocket-propelled grenade launcher developed by V.A. Artemyev and S.F. Fonarev (under the supervision of S.Ya. Bodrov). Adopted into service in 1945.



RBU (Shirokorad A.B., Weapons of the domestic fleet.
1945-2000. Minsk, Harvest, 2001)

Author: DIMMI Created: 05.03.2009 01:52:18 Comments: 1 READ THE FULL ARTICLE